



**MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY JAMSHORO**

**Department of Civil Engineering**

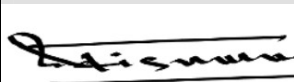


**LESSON PLAN**

<b>COURSE TITLE: Quantity Surveying &amp; Estimation</b>		<b>COURSE CODE: CE341</b>	<b>CREDIT HOURS: 03</b>	<b>MINIMUM CONTACT HOURS: 48</b>
<b>COURSE INSTRUCTOR: Prof. Dr. Nafees Ahmed Memon(A+C)/Engr. Abdul Raqeeb Memon (B+D)/Engr. Zaid Khan (B)</b>				
<b>Batch:21CE</b>	<b>Semester: 6<sup>th</sup></b>	<b>Semester Starting Date: 15-07-2024</b>	<b>Semester Suspension Date: 06-11-2024</b>	
<b>COURSE LEARNING OUTCOMES:</b>				
CLO	Description	Taxonomy Level	Associated PLO	
1	SOLVE the numerical related to quantities of various civil engineering works.	C3	2	
2	ANALYZE cost of construction project and discuss contract award procedure	C4	4	
<b>LESSON CONTENTS AND ASSOCIATED CLO(s)</b>				
Contents	CLO No.	Marks Assigned	Delivery Methods	Assessment Methods (Marks)
<b>INTRODUCTION AND QUANTITY CALCULATION OF VARIOUS CIVIL ENGINEERING WORKS:</b> <ul style="list-style-type: none"> <li>• Introduction and overview of the subject</li> <li>• Significance of cost estimation in construction industry</li> <li>• Estimate and its' types</li> <li>• Role of quantity surveyor at different organizational levels</li> <li>• Importance of preliminary estimate in administrative approval of public sector projects</li> <li>• Main requirements and factors to be considered while preparing a detailed estimate</li> <li>• Scope of civil engineering works and its' impact on cost estimate</li> <li>• Preliminary estimate of various buildings</li> <li>• Load bearing structures (Quantity calculation using Separate wall and Center line methods)</li> <li>• R.C.C structures (Quantity calculation related to Column, Beam, Slab, Staircase and Retaining wall)</li> <li>• Road works (Lead and Lift, Calculation of earthwork using different methods)</li> <li>• Concepts related to quantity calculation of bridges and steel structures</li> <li>• Quantity calculation of sewerage and water supply works</li> </ul> <p>➤ <b>No. of lectures: 33</b></p>	<b>1</b>	<b>70</b>	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Class practice</li> </ul>	<ul style="list-style-type: none"> <li>• Sessional Activity I: Class Test/Quiz (07)</li> <li>• Sessional Activity II: Assignment/ Project (07)</li> <li>• Mid semester Exam (20)</li> <li>• Final Exam (36)</li> </ul>

<p><b>RATE ANALYSIS, BILL OF QUANTITIES (BOQ), TENDERING &amp; AWARD OF WORKS</b></p> <ul style="list-style-type: none"> <li>• Task or Out-turn work</li> <li>• Importance of Rate Analysis (RA)</li> <li>• Significance of productivity calculation in RA</li> <li>• Factors influencing RA</li> <li>• Specifications of various items in construction</li> <li>• Schedule of rates in public sector</li> <li>• RA of different items</li> <li>• Preparing BOQ, Maintaining Measurement Book (MB)</li> <li>• Types of contracts</li> <li>• Preparation of tender documents and evaluation of bids</li> <li>• Security deposit, Earnest money</li> <li>• Valuation of buildings and its' purpose</li> <li>• Procedure for award of works in public sector</li> </ul> <p>➤ <b>No. of lectures: 15</b></p>	2	30	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Class practice</li> </ul>	<ul style="list-style-type: none"> <li>• Sessional Activity III: Class Test/Quiz (03)</li> <li>• Sessional Activity IV: Assignment/Project (03)</li> <li>• Final Exam (24)</li> </ul>
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**ASSESSMENT DETAILS**

S. No.	Assessment Activities	Marks	Activities	CLO(s) to be assessed
1	Sessional	20	Class Test/ Quiz/ Assignment/Project	4 1, 2
2	Mid Semester Exam	20	1	1
3	Final Semester Exam	60	1	1, 2

<p>Prepared by: <b>Prof. Dr. Nafees Ahmed Memon</b></p>  <p>Signature : Dated: 27-05-2024</p>	<p>Reviewed by: <b>Curriculum Review Committee</b></p>  <p>Signature: Dated: 30-05-2024</p>	<p>Approved by: <b>Chairman, CED</b></p>  <p>Signature: Dated: 30-05-2024</p>
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